

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060876

Luminaire Tested: S124RDR-H575D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060876
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D835-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

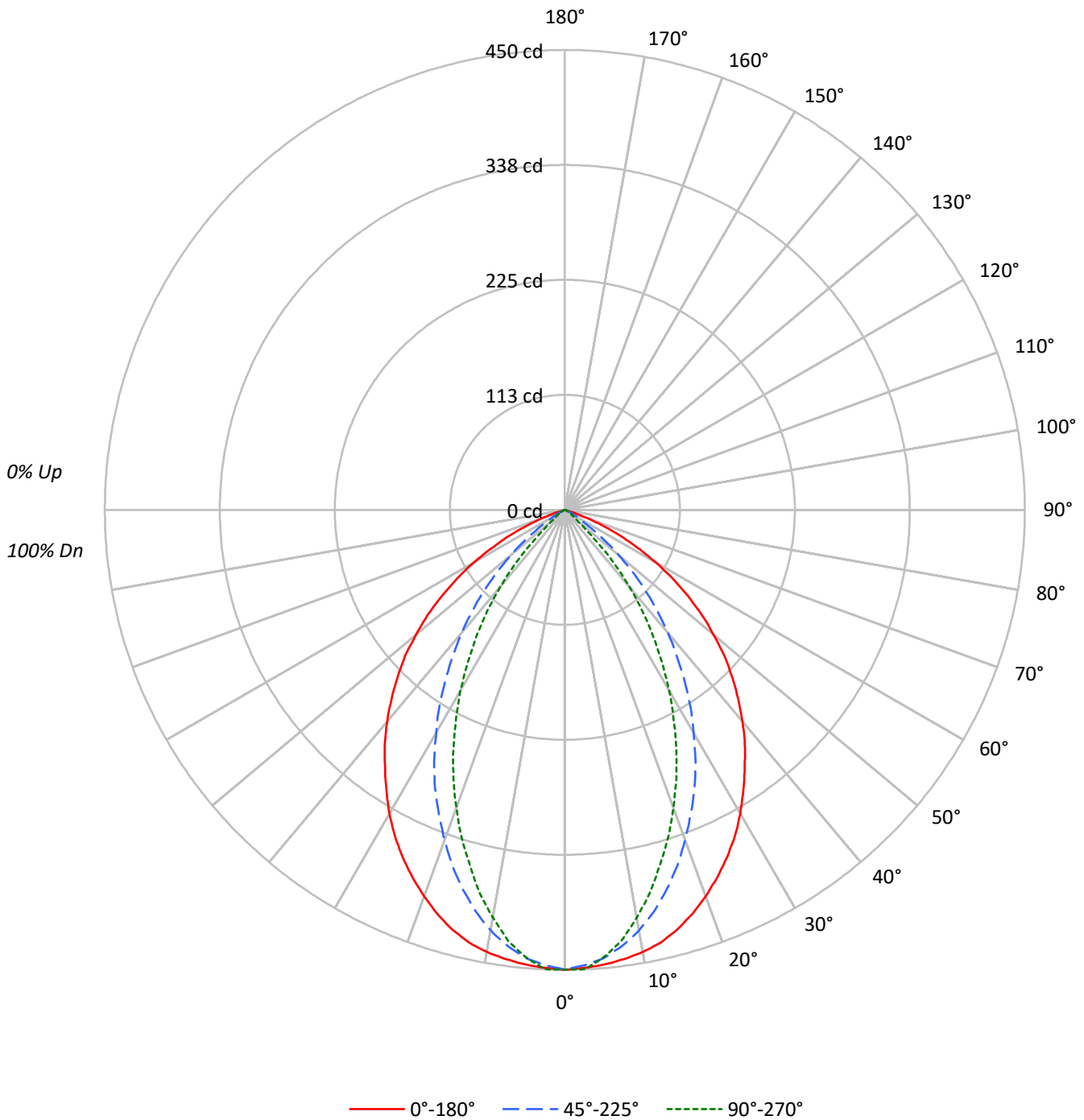
Lumens per Lamp: N/A
Luminaire Lumens: 587.5 lumens
Efficiency: N/A
Efficacy: 33.8 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3874	3874	3874
5°	3860	3804	3798
10°	3842	3655	3541
15°	3790	3430	3205
20°	3688	3151	2842
25°	3564	2853	2452
30°	3413	2502	2029
35°	3225	2146	1579
40°	3040	1761	1104
45°	2818	1354	547
50°	2543	915	184
55°	2196	468	128
60°	1758	169	90
65°	1206	94	41
70°	541	50	33
75°	0	23	23
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2818 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.5	7.1
10°-20°	108.9	18.5
20°-30°	141.0	24.0
30°-40°	133.9	22.8
40°-50°	94.9	16.1
50°-60°	48.7	8.3
60°-70°	17.1	2.9
70°-80°	1.5	0.3
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	291.4	49.6
0°-40°	425.3	72.4
0°-60°	568.9	96.8
0°-90°	587.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	587.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	447	447	440	440	439	42
15°	425	412	385	367	360	120
25°	375	346	300	268	258	172
35°	307	262	204	164	150	192
45°	231	178	111	64	45	178
55°	146	96	31	9	8	131
65°	59	29	5	3	2	59
75°	0	1	1	1	1	5
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	449.9	449.9	449.9	449.9	449.9
2.5°	448.5	449.9	445.9	449.2	449.9
5°	446.6	447.2	440.1	440.1	439.4
7.5°	443.3	442.0	430.3	425.8	425.1
10°	439.4	434.9	418.0	408.2	405.0
12.5°	433.6	425.1	402.4	388.1	384.2
15°	425.1	412.1	384.8	366.6	359.5
17.5°	414.7	397.8	365.3	343.2	336.1
20°	402.4	380.9	343.9	319.2	310.1
22.5°	389.4	364.7	321.8	293.8	284.7
25°	375.1	345.8	300.3	268.5	258.1
27.5°	360.1	325.7	276.9	243.8	230.1
30°	343.2	305.5	251.6	217.1	204.1
32.5°	325.0	283.4	228.8	191.8	176.2
35°	306.8	262.0	204.1	164.5	150.2
37.5°	289.3	241.8	179.4	137.8	124.2
40°	270.4	219.7	156.7	113.8	98.2
42.5°	250.9	198.3	133.3	89.1	72.2
45°	231.4	178.1	111.2	63.7	44.9
47.5°	211.9	156.7	89.7	40.3	24.1
50°	189.8	135.9	68.3	21.5	13.7
52.5°	169.0	116.4	48.8	12.4	10.4
55°	146.3	96.2	31.2	9.1	8.5
57.5°	124.8	76.7	17.6	7.2	6.5
60°	102.1	59.2	9.8	5.9	5.2
62.5°	79.3	42.9	6.5	3.9	3.3
65°	59.2	28.6	4.6	2.6	2.0
67.5°	39.0	16.3	3.3	1.3	1.3
70°	21.5	7.8	2.0	1.3	1.3
72.5°	7.8	2.6	1.3	0.7	0.7
75°	0.0	0.7	0.7	0.7	0.7
77.5°	0.0	0.0	0.0	0.0	0.7
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	13.23	14.49	13.60	14.80	15.12	0.00	0.00	0.00	0.00	0.00
	3H	13.51	14.62	13.89	14.95	15.31	0.00	0.00	0.00	0.00	0.00
	4H	13.43	14.46	13.84	14.81	15.20	0.00	0.00	0.00	0.00	0.00
	6H	13.35	14.29	13.76	14.66	15.05	0.00	0.00	0.00	0.00	0.00
	8H	13.30	14.19	13.73	14.58	14.99	0.00	0.00	0.00	0.00	0.00
	12H	13.26	14.10	13.69	14.49	14.92	0.00	0.00	0.00	0.00	0.00
4H	2H	13.01	14.03	13.41	14.38	14.77	0.00	0.00	0.00	0.00	0.00
	3H	13.29	14.12	13.70	14.52	14.93	0.00	0.00	0.00	0.00	0.00
	4H	13.20	13.93	13.63	14.35	14.80	0.00	0.00	0.00	0.00	0.00
	6H	13.11	13.74	13.58	14.19	14.66	0.00	0.00	0.00	0.00	0.00
	8H	13.05	13.64	13.52	14.09	14.56	0.00	0.00	0.00	0.00	0.00
	12H	13.00	13.51	13.49	14.00	14.47	0.00	0.00	0.00	0.00	0.00
8H	4H	13.05	13.64	13.52	14.09	14.56	0.00	0.00	0.00	0.00	0.00
	6H	12.94	13.42	13.45	13.92	14.40	0.00	0.00	0.00	0.00	0.00
	8H	12.87	13.30	13.40	13.82	14.31	0.00	0.00	0.00	0.00	0.00
	12H	12.82	13.20	13.34	13.70	14.27	0.00	0.00	0.00	0.00	0.00
12H	4H	13.00	13.51	13.49	14.00	14.47	0.00	0.00	0.00	0.00	0.00
	6H	12.87	13.30	13.40	13.82	14.31	0.00	0.00	0.00	0.00	0.00
	8H	12.82	13.20	13.34	13.70	14.27	0.00	0.00	0.00	0.00	0.00